

Iowa Power Fund Board – Due Diligence Committee (DDC)
Meeting Minutes
March 11, 2008
Iowa Utilities Board, Conference Room 3
350 Maple St., Des Moines, Iowa

Call to Order:

Roya Stanley, Chair, called the meeting to order at 1:05 P.M.

Roll Call:

Member	Present	Absent
Franklin Codel	X	
Ted Crosbie		X
Vern Gebhart	Conf.call	
Patricia Higby	X	
Fred Hubbell	X	
William [Curt] Hunter	Conf.call	
Roya Stanley, nonvoting	X	
Iowa Energy Center Rep.		X

- Also in attendance: Senator Roger Stewart (Iowa Power Fund Board), Lucy Norton (Iowa Renewable Fuels Association and the Iowa Power Fund Board, OEI staff: Jennifer Wright, and Brian Crowe (Recording Secretary); Governor's Office: Deborah Svec-Carstens (associate general counsel, Governor's Office)

Approval of Agenda:

Director Stanley requested that agenda be approved. Mr. Hunter moved, Mr. Hubbell seconded, to approve the agenda. All members in attendance voted "aye".

Approval of Minutes:

Ms. Higby moved, Mr. Hunter seconded, that the Minutes of the February 27, 2008 meeting be approved as written. Committee members would like more time to discuss. Minutes approved.

Mr. Hubbell moved, Mr. Codel seconded, that the Minutes of the March 4, 2008 meeting be approved with the change that lists Mr. Hubbell as on the conference call. Minutes approved.

1051: UV Curable Ink Formulations – UNI proposal is to create an environmentally friendly ink component from soy oil.

The following comments were made:

- No cost shared is listed, but there is a suggestion that cost share could be found.
- Soy is in high demand which could make the process expensive.

Yes- none

Yes, if- Higby

No but- Hunter

No- Codel, Hubbell

1052: UNI Harvesting Iowa Prairie Plants for Industrial Compounds- this project proposes to look at compounds that currently are not being developed for industrial use.

The following comments were made:

- Not significant cost share.
- This is on-going research.
- Uncertainty about the innovation and replication of this work.

- This is the type of research that many are looking at across the country.
- This could be value added to future biofuels production in the state.

Yes- none

Yes, if- Higby

No but- none

No- Codel, Hubbell, Hunter

1053: Developing Less Expensive Dye Sensitized Solar Cells – this proposal deals with developing alternative techniques to develop less expensive photovoltaic cells for commercial applications.

The following comments were made:

- Cost reducing technology.
- Work to be done through UNI and Luther College.
- No match in the proposal.
- Seems to be innovative and the economics are in place if the technology were developed.
- This could be Iowa's ability to enter into the solar industry.
- There are no partners to make the proposal economically viable- seems more educational.
- Suggestion of a year funding, with further years conditional on the NSF grant.
- Technical review would be necessary.
- 50:50 cost share would be ideal for this proposal.

Yes-none

Yes, if- Codel, Higby, Hubbell, Hunter

No but-none

No- none

1055: Cornerstone BRAD – this proposal deals with creating an anaerobic digestion process. Biogas would supplement natural gas usage in Northwest Iowa.

The following comments were made:

- Not clear on which type of financial assistance is being requested.
- Technology could be used to reduce odor from confined animal feedlot operations.
- Alliant has several projects developing this technology in Iowa and Wisconsin.
- There is the opportunity and need to capture the methane gas and develop the energy output
- There is uncertainty that the technology is reliable.
- Is a short term loan viable versus a three year loan?
- Is there a viable output for sale?
- DNR review is necessary.
- Application needs to be new to Iowa, why has the technology not been developed in Iowa to this point.
- There needs to be information about a power purchase agreement.

Yes-none

Yes, if- Codel, Gebhart, Higby, Hubbell, Hunter

No but- none

No- none

1056: Sriya Biorefinery – propose to develop a new ethanol process which would take biomass products and divide them into ethanol and chemicals.

The following comments were made:

- Very early research and commercializable component is a few years off.
- Technical review is necessary.
- Technology and intellectual property would need to be made available to others.
- Good venture capital firm, good researchers, and partnerships.
- Smaller amount to fund the research and pilot stage could be a better investment for the Power Fund.

Yes-none

Yes, if- Codel, Hubbell,

No but-Higby, Hunter, Gebhart

No-none

1057: VeraSun - this proposal deals with extracting corn oil out of DDG for biodiesel production.

The following comments were made:

- Reduce the need for soybean for biodiesel production.
- Does not seem to identify any environmental benefit.
- Will make ethanol plants more profitable.
- The technology does not seem to be innovative.
- There is a significant amount of match.
- The technology is very replicable.
- VeraSun may be pursuing the technology in South Dakota.
- Number of different technologies being tested and implemented.
- Increases ethanol product line as well as adds feedstock to the biodiesel industry.
- Co-product feedstock will be altered which may allow feedstocks to be fed to other animals.

Yes- none

Yes, if- none

No but-Hubbell

No- Codel, Higby, Hunter, Gebhart

Mr. Hubbell moved to go into closed session for confidentiality, Ms. Higby seconded under 25.1a. Unanimous roll call vote Mr. Codel, Mr. Gebhart, Ms. Higby, Mr. Hubbell, and Mr. Hunter all voted aye. Jennifer Wright, Deborah Svec-Carstens, Lucy Norton, Brian Crowe.

1058: River Gulf Energy - closed session.

Mr. Hunter moves to go into open session, Mr. Hubbell seconded. Unanimous roll call vote Mr. Codel, Mr. Gebhart, Ms. Higby, Mr. Hubbell, and Mr. Hunter all voted aye.

Yes- none

Yes, if- none

No but- Codel, Higby, Hubbell, Hunter, Gebhart

No- none

1059: Iowa Stored Energy Park - this proposal would develop an aquifer to store compressed wind energy when there is not significant amounts of wind to generate electricity.

The following comments were made:

- There are a variety of partnerships already in place.
- The leverage from the Power Fund is less than half the total that will be used for this project.
- Are there other geological formations in the state that would allow for replication of this technology?
- Geology review may be necessary.
- Is the land for the proposed site under contract?
- Validation the existence of the cost share

Yes- Codel, Higby

Yes, if- Hubbell, Hunter

No but-none

No- none

Recusal - Gebhart

1060: Adding Value to Biomass Co-Products - this proposal seeks to create new value added products from the surplus of biomass co-products.

The following comments were made:

- Pilot scale facility
- Farmer owned co-op that is a proactive group that has developed other co-products.
- Interested in a forgivable loan or grant.
- There is doubt that Beacon has the ability to do this testing
- A technical review would be required.
- Financial support needs more information
- Intellectual property and royalties are an option
- Forgivable loan and loan guarantee option?
- Should be some clarity on the cost share.
- Is this something that large companies are already doing?

Yes-none

Yes, if- Higby, Hunter, Gebhart

No but-Codel, Hubbell

No- none

1061: Corn Oil Extraction and Biodiesel Facility - the proposal will extract oil from corn to develop a feedstock to the biodiesel industry.

The following comments were made:

- How innovative is the technology.
- The applicants are open to various forms of funding.
- A loan guarantee might be the best option
- Can USDA be involved?
- Technology should be reviewed as a whole. The technology could be evaluated as a whole. This project is very similar to several other projects that the committee has seen.
- A policy should be developed about what is new and existing technology.
- New ethanol plants have much more energy efficient technology which gives a cost advantage. Older plants are starting to invest in energy efficiency to be as cost competitive.

Yes- none

Yes, if- none

No but- none

No- Codel, Higby, Hubbell, Hunter, Gebhart

1062: Clean Air Choice E85 Promotion - this proposal would develop a website to develop consumer market for renewable fuels through promotional and educational materials.

The following comments were made:

- Where did Minnesota get the money for this project, and how successful was the Minnesota project?
- Governor is interested in a taskforce that will develop a plan, which may be the first step.
- There is some skepticism of spending money on survey tools.
- A pre-application could be redeveloped to implement ideas of a biofuels task force.
- A year program would be better.

Yes- none

Yes, if- none

No but- Codel, Higby, Hubbell

No- Hunter, Gebhart

1063: Photovoltaic Systems for Residential Sites - this cooperative seeks to install 40 photovoltaic systems at 40 households per year for 3 years and implement energy efficiency.

The following comments were made:

- The approach is not innovative, but if successful business model could be replicable.

- With PV cell and energy meter, customers could be directly engaged.
- Only affects 150 homeowners for \$1 million dollars.
- Homeowners should maybe have to buy their own PV panels.
- USDA Rural Utility Service may be a better option for this program.
- All REC's may request similar funding for energy efficient programs.
- A loan may be more feasible with energy saving paybacks.
- There may be some ways to develop financing options for residential homes with the Iowa Financing Authority.

Yes- none

Yes, if- none

No but- Higby, Hubbell, Hunter

No-Codel, Gebhart

1064: 2008 Biobased Industry Outlook Conference - this is proposal seeks funding for the Iowa State biorenewables conference.

The following comments were made:

- \$25,000 is a large request, \$15,000 is a smaller and more conceivable amount
- There needs to be an opportunity for the Office of Energy Independence to market the Iowa Power Fund.
- This could be an opportunity to create a policy for funding conferences.
- Iowa Energy Center should be engaged as well.

Yes- none

Yes, if- Codel, Hubbell, Gebhart

No but- Hunter

No- Higby

1065: Glenwood Wind Turbine- this proposal seeks funding to install a wind turbine at a new high school.

The following comments were made:

- The group is amenable to a forgivable loan or a grant.
- The project is financeable.
- The utility interfacing needs to be worked out.

Yes-none

Yes, if- none

No but- none

No-Codel, Higby, Hubbell, Hunter, Gebhart

1066: Developing Biobased Products - this proposal seeks to develop biomass co-products through fast pyrolysis with liquids, gases, and char.

The following comments were made:

- This may be several proposals in one application.
- Low cost share.
- Technical review would be necessary.

Yes-none

Yes, if- none

No but- Codel, Hubbell

No- Higby, Hunter, Gebhart

1067: Wind Energy Concept Evaluation System - this proposal seeks to develop hardware and software to create an optimal wind energy system.

The following comments were made:

- There is not the engagement of the national laboratories like the National Renewable Energy Laboratory.
- This could be a program that could be offered to utilities to optimize efficiency of wind turbines.
- There could be collaboration with industry partners.
- Private entity could have proprietary information for private gain.
- Is this technology currently being developed by other entities?
- Project could be funded for short term rather than long term.

Yes-

Yes, if- Higby

No but- Codel, Hubbell, Hunter, Gebhart

No-none

1068: Biomass Feedstock Production Systems - this proposal seeks to develop biomass feedstock production system to optimize the annual cropping systems for biomass production.

The following comments were made:

- Similar to project 1041 which will request a full application.
- This proposals could be several applications- tasks could be separated out with more detail provided for each aspect of the proposal.
- Some of the research may be ongoing.
- There are some questions on the funding sources and uses.
- There should be more guidance from the Office of Energy Independence on budgetary items.

Yes-

Yes, if- none

No but- Codel, Higby, Hunter, Hubbell, Gebhart

No- none

1069: High-Throughput Evaluations of Feedstocks for Biofuels Production - this proposal seeks to develop a series of screening capabilities for assessing the suitability of grains, cellulosic feedstocks, enzymes, pretreatments, and microorganisms for biofuels production.

The following comments were made:

- There are corporate partnerships-use and value to the market, should see quick results
- Technical review could be necessary.
- There may be significant investment in this type of research from the private sector.
- Feedstock performance information would be very useful.
- Large request and small match.
- Power fund monies could be limited to equipment.
- Pre-app may need to be reevaluated when compared to sets of other pre-applications.

Yes- none

Yes, if- none

No but- Higby, Hubbell, Hunter, Gebhart

No- none

1070: Advanced Corn and Soybean Biorefineries - this proposal would develop new technologies to advance corn and soybean biorefineries.

- Technical review would be necessary.
- There should be a review to see what research is already being undertaken.
- There is match which shows interest from industry.
- This could be three separate proposals.

- Will the research happen without Power Fund money?
- A more viable proposal would include equal match from industry.

Yes- none

Yes, if- none

No but- Gebhart, Higby, Hubbell, Hunter

No-none

1073: Efficient Low Cost Photovoltaic Research and Development - this proposal would seek to develop an efficient, low cost, photovoltaic solar energy conversion process.

The following comments were made:

- Qualified applicants
- Good partnerships
- Under developed area in Iowa that could benefit.
- This project seeks to improve older technology where other proposals for PV in Iowa Power Fund seek to develop new processes.
- There are questions as to where the patent lies.
- Technical and financial reviews would be necessary.

Yes- none

Yes, if- Higby, Hunter, Gebhart

No but-Hubbell

No- none

1074: Expanded Powerline Program- this proposal seeks to expand the power line training program at Northwest Iowa Community College to meet the growing needs of this industry.

The following comments were made:

- Department of Economic Development has \$2.5 million from Power Fund that is distributed by formula.
- Community Colleges may need to develop a plan for how Iowa as a whole can meet new energy needs.
- Workforce Development should be engaged in this issue.
- There are federal monies available for this type of training.

Yes- none

Yes, if- none

No but- none

No- Higby, Hubbell, Hunter, Gebhart

1076: Powerfilm Inc. Technology Improvements - this project seeks to improve existing technology to help the company's manufacturing process.

The following comments were made:

- It is not clear what the benefits are to the state.
- This may be more of a DED project.
- Most of the project is for improvements not innovation.
- A loan may be more feasible.

Yes- none

Yes, if- Higby

No but- none

No- Gebhart, Hubbell, Hunter

1078: Amazing Energy Fractionation Process - this project seeks to develop the MOR fractionation process to develop add valued corn oil in the ethanol production process.

The following comments were made:

- Seems innovative
- Large amount of backing money

- There seems to be a lot of replication of this technology.
- This is a demonstration of a new technology.

Yes- none

Yes, if- none

No but- none

No- Codel, Gebhart, Higby, Hubbell, Hunter

1077: Biodiesel Alternative Feedstock Research Center – this project seeks to develop a research and development center to conduct research activities on converting waste plastics to biodiesel fuel.

The following comments were made:

- Biodiesel industry is struggling with the high cost of feedstocks.
- The United States Department of Energy has gotten out of biodiesel research- there is recognition that more research may need to be done in the biodiesel industry.
- There would need to be clarification on how the research information would be available.
- Money used for construction of the lab and equipment.
- Possibly be more focused with universities and competitive businesses.

Yes- none

Yes, if- none

No but- Gebhart, Higby, Hubbell, Hunter

No- none

Recusal- Codel

1075: Wind Turbine for Low Wind Speeds – this project would be to develop a low speed wind turbine for individual use.

The following comments were made:

- Seems to be for individual gain.

Yes- none

Yes, if- none

No but- Higby

No- Hubbell, Codel, Gebhart

1079: TPI Wind Blade – this project seeks to streamline the wind manufacturing industry for production of wind turbines.

The following comments were made:

- Seems to be for job creation and job retention, may be more of a DED project
- If the process could be developed to make the process more efficient and the information was shared in real time, it could be more feasible.
- May not be replicable for other businesses.
- There have been incentives from the State of Iowa already in bringing these companies into to the state.
- The Wind Innovation Center could be the solution to provide equal output to the industry.
- GE six sigma investments could be an option down the road for a GE supplier.

Yes- none

Yes, if- none

No but- Codel, Gebhart, Higby, Hubbell

No- none

1042 and 1044- two applications from two community colleges.

Projects will be evaluated with community colleges plan for workforce development.

Yes- none

Yes, if- none

No but- none

No- Codel, Gebhart, Higby, Hubbell

Other Business

The DDC has the authority to ask for full applications from pre-applications that fell into yes or yes-if categories. The OEI will present DDC decisions to the Power Fund Board. Staff will condense comments and Due Diligence decisions for evaluation by the Board.

The Board needs to think about how to help good ideas that are not ready for the Power Fund. A summary of ideas will help the Board understand the ideas behind the Board.

Adjournment:

There being no further business to discuss at this time, the meeting adjourned at about 5:45 P.M. It was indicated the next meeting would be Wednesday, March 26th at IUB.

Roya Stanley, Committee Chair

Brian Crowe, Recording Secretary

Date